



1600

## RAW SEQUENCE LISTING

DATE: 04/17/2003

PATENT APPLICATION: US/09/582,761B

TIME: 10:46:40

Input Set : A:\37945008.app

Output Set: N:\CRF4\04172003\I582761B.raw

3 <110> APPLICANT: COX, VIVienne FRANCES  
 4 SMITH, RICHARD ANTHONY GODWIN  
 5 ROWLING, PAMELA JANE ELIZABETH  
 7 <120> TITLE OF INVENTION: NON-IDENTICAL GENES AND THEIR APPLICATION IN  
 8 IMPROVED MOLECULAR ADJUVANTS  
 10 <130> FILE REFERENCE: 37945-0008  
 12 <140> CURRENT APPLICATION NUMBER: 09/582,761B  
 C--> 13 <141> **CURRENT FILING DATE: 1990-09-14**  
 15 <150> PRIOR APPLICATION NUMBER: PCT/GB98/03918  
 16 <151> PRIOR FILING DATE: 1998-12-30  
 18 <150> PRIOR APPLICATION NUMBER: GB 9727512.7  
 19 <151> PRIOR FILING DATE: 1997-12-31  
 21 <160> NUMBER OF SEQ ID NOS: 49  
 23 <170> SOFTWARE: PatentIn version 2.1  
 25 <210> SEQ ID NO: 1  
 26 <211> LENGTH: 100  
 27 <212> TYPE: DNA  
 28 <213> ORGANISM: Artificial Sequence  
 30 <220> FEATURE:  
 31 <223> OTHER INFORMATION: Description of Artificial Sequence: DNA sequence of Fuzl  
 33 <220> FEATURE:  
 34 <221> NAME/KEY: modified\_base  
 35 <222> LOCATION: (24)  
 36 <223> OTHER INFORMATION: a, c, g or t  
 38 <220> FEATURE:  
 39 <221> NAME/KEY: modified\_base  
 40 <222> LOCATION: (30)  
 41 <223> OTHER INFORMATION: a, c, g or t  
 43 <220> FEATURE:  
 44 <221> NAME/KEY: modified\_base  
 45 <222> LOCATION: (33)  
 46 <223> OTHER INFORMATION: a, c, g or t  
 48 <220> FEATURE:  
 49 <221> NAME/KEY: modified\_base  
 50 <222> LOCATION: (39)  
 51 <223> OTHER INFORMATION: a, c, g or t  
 53 <220> FEATURE:  
 54 <221> NAME/KEY: modified\_base  
 55 <222> LOCATION: (57)  
 56 <223> OTHER INFORMATION: a, c, g or t  
 58 <220> FEATURE:  
 59 <221> NAME/KEY: modified\_base  
 60 <222> LOCATION: (63)

P.6

**ENTERED**

## RAW SEQUENCE LISTING

DATE: 04/17/2003

PATENT APPLICATION: US/09/582,761B

TIME: 10:46:40

Input Set : A:\37945008.app

Output Set: N:\CRF4\04172003\I582761B.raw

61 <223> OTHER INFORMATION: a, c, g or t  
 63 <220> FEATURE:  
 64 <221> NAME/KEY: modified\_base  
 65 <222> LOCATION: (69)  
 66 <223> OTHER INFORMATION: a, c, g or t  
 68 <220> FEATURE:  
 69 <221> NAME/KEY: modified\_base  
 70 <222> LOCATION: (72)  
 71 <223> OTHER INFORMATION: a, c, g or t  
 73 <220> FEATURE:  
 74 <221> NAME/KEY: modified\_base  
 75 <222> LOCATION: (78)  
 76 <223> OTHER INFORMATION: a, c, g or t  
 78 <220> FEATURE:  
 79 <221> NAME/KEY: modified\_base  
 80 <222> LOCATION: (81)  
 81 <223> OTHER INFORMATION: a, c, g or t  
 83 <400> SEQUENCE: 1

W--> 84 caccgcgagcc atatgagatc tacnccwgcg ggntchggng arcaraayat gatyggnatg 60  
 85 acnccwacng tnatygcngt ncaactacctg gaccagaccg 100  
 88 <210> SEQ ID NO: 2  
 89 <211> LENGTH: 94  
 90 <212> TYPE: DNA  
 91 <213> ORGANISM: Artificial Sequence  
 93 <220> FEATURE:  
 94 <223> OTHER INFORMATION: Description of Artificial Sequence: DNA sequence of Fuz2  
 96 <220> FEATURE:  
 97 <221> NAME/KEY: modified\_base  
 98 <222> LOCATION: (19)  
 99 <223> OTHER INFORMATION: a, c, g or t  
 101 <220> FEATURE:  
 102 <221> NAME/KEY: modified\_base  
 103 <222> LOCATION: (40)  
 104 <223> OTHER INFORMATION: a, c, g or t  
 106 <220> FEATURE:  
 107 <221> NAME/KEY: modified\_base  
 108 <222> LOCATION: (61)  
 109 <223> OTHER INFORMATION: a, c, g or t  
 111 <400> SEQUENCE: 2

W--> 112 ggccagctgc tgggtrtanc cyttyttrat vagytcvagn gcytcytrc gytttycrat 60  
 113 nccraaytty tccaytgyt cgggtctggc cagg 94  
 116 <210> SEQ ID NO: 3  
 117 <211> LENGTH: 93  
 118 <212> TYPE: DNA  
 119 <213> ORGANISM: Artificial Sequence  
 121 <220> FEATURE:  
 122 <223> OTHER INFORMATION: Description of Artificial Sequence: DNA sequence of Fuz3  
 124 <220> FEATURE:  
 125 <221> NAME/KEY: modified\_base

## RAW SEQUENCE LISTING

DATE: 04/17/2003

PATENT APPLICATION: US/09/582,761B

TIME: 10:46:40

Input Set : A:\37945008.app

Output Set: N:\CRF4\04172003\I582761B.raw

```

126 <222> LOCATION: (35)
127 <223> OTHER INFORMATION: a, c, g or t
129 <220> FEATURE:
130 <221> NAME/KEY: modified_base
131 <222> LOCATION: (41)
132 <223> OTHER INFORMATION: a, c, g or t
134 <220> FEATURE:
135 <221> NAME/KEY: modified_base
136 <222> LOCATION: (44)
137 <223> OTHER INFORMATION: a, c, g or t
139 <220> FEATURE:
140 <221> NAME/KEY: modified_base
141 <222> LOCATION: (68)
142 <223> OTHER INFORMATION: a, c, g or t
144 <220> FEATURE:
145 <221> NAME/KEY: modified_base
146 <222> LOCATION: (77)
147 <223> OTHER INFORMATION: a, c, g or t
149 <400> SEQUENCE: 3
W--> 150 cccagcagct ggccttyaar carccwtcht chgcntaygc ngcnttyaay aaycgyccwc 60
151 cwtchacntg gctbacngcc tacgtggtca agg 93
154 <210> SEQ ID NO: 4
155 <211> LENGTH: 106
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Description of Artificial Sequence: DNA sequence of Fuz4
162 <220> FEATURE:
163 <221> NAME/KEY: modified_base
164 <222> LOCATION: (32)
165 <223> OTHER INFORMATION: a, c, g or t
167 <220> FEATURE:
168 <221> NAME/KEY: modified_base
169 <222> LOCATION: (35)
170 <223> OTHER INFORMATION: a, c, g or t
172 <220> FEATURE:
173 <221> NAME/KEY: modified_base
174 <222> LOCATION: (38)
175 <223> OTHER INFORMATION: a, c, g or t
177 <220> FEATURE:
178 <221> NAME/KEY: modified_base
179 <222> LOCATION: (47)
180 <223> OTHER INFORMATION: a, c, g or t
182 <220> FEATURE:
183 <221> NAME/KEY: modified_base
184 <222> LOCATION: (62)
185 <223> OTHER INFORMATION: a, c, g or t
187 <220> FEATURE:
188 <221> NAME/KEY: modified_base

```

## RAW SEQUENCE LISTING

DATE: 04/17/2003

PATENT APPLICATION: US/09/582,761B

TIME: 10:46:40

Input Set : A:\37945008.app

Output Set: N:\CRF4\04172003\I582761B.raw

```

189 <222> LOCATION: (74)
190 <223> OTHER INFORMATION: a, c, g or t
192 <220> FEATURE:
193 <221> NAME/KEY: modified_base
194 <222> LOCATION: (77)
195 <223> OTHER INFORMATION: a, c, g or t
197 <220> FEATURE:
198 <221> NAME/KEY: modified_base
199 <222> LOCATION: (89)
200 <223> OTHER INFORMATION: a, c, g or t
202 <400> SEQUENCE: 4
W--> 203 ccggcttctg cttctccagr atvagccayt tnaengcncc rcavagnacg tgdgartcra      60
204 tngcratvag rttingengcv agdgaraana ccttgaccac gtaggc      106
207 <210> SEQ ID NO: 5
208 <211> LENGTH: 95
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: Description of Artificial Sequence: DNA sequence for Fuz5
215 <220> FEATURE:
216 <221> NAME/KEY: modified_base
217 <222> LOCATION: (22)
218 <223> OTHER INFORMATION: a, c, g or t
220 <220> FEATURE:
221 <221> NAME/KEY: modified_base
222 <222> LOCATION: (25)
223 <223> OTHER INFORMATION: a, c, g or t
225 <220> FEATURE:
226 <221> NAME/KEY: modified_base
227 <222> LOCATION: (40)
228 <223> OTHER INFORMATION: a, c, g or t
230 <220> FEATURE:
231 <221> NAME/KEY: modified_base
232 <222> LOCATION: (46)
233 <223> OTHER INFORMATION: a, c, g or t
235 <220> FEATURE:
236 <221> NAME/KEY: modified_base
237 <222> LOCATION: (67)
238 <223> OTHER INFORMATION: a, c, g or t
240 <220> FEATURE:
241 <221> NAME/KEY: modified_base
242 <222> LOCATION: (70)
243 <223> OTHER INFORMATION: a, c, g or t
245 <220> FEATURE:
246 <221> NAME/KEY: modified_base
247 <222> LOCATION: (76)
248 <223> OTHER INFORMATION: a, c, g or t
250 <400> SEQUENCE: 5
W--> 251 ggagaagcag aagccggayg gngtnttyca rgargayggn ccwgtnatyc accargarat      60

```

## RAW SEQUENCE LISTING

DATE: 04/17/2003

PATENT APPLICATION: US/09/582,761B

TIME: 10:46:40

Input Set : A:\37945008.app

Output Set: N:\CRF4\04172003\I582761B.raw

```

252 gatyggnggn ttycgnaacg ccaaggaggc agatg 95
255 <210> SEQ ID NO: 6
256 <211> LENGTH: 100
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Description of Artificial Sequence: DNA sequence of Fuz6
263 <220> FEATURE:
264 <221> NAME/KEY: modified_base
265 <222> LOCATION: (19)
266 <223> OTHER INFORMATION: a, c, g or t
268 <220> FEATURE:
269 <221> NAME/KEY: modified_base
270 <222> LOCATION: (25)
271 <223> OTHER INFORMATION: a, c, g or t
273 <220> FEATURE:
274 <221> NAME/KEY: modified_base
275 <222> LOCATION: (43)
276 <223> OTHER INFORMATION: a, c, g or t
278 <220> FEATURE:
279 <221> NAME/KEY: modified_base
280 <222> LOCATION: (55)
281 <223> OTHER INFORMATION: a, c, g or t
283 <220> FEATURE:
284 <221> NAME/KEY: modified_base
285 <222> LOCATION: (64)
286 <223> OTHER INFORMATION: a, c, g or t
288 <220> FEATURE:
289 <221> NAME/KEY: modified_base
290 <222> LOCATION: (70)
291 <223> OTHER INFORMATION: a, c, g or t
293 <220> FEATURE:
294 <221> NAME/KEY: modified_base
295 <222> LOCATION: (73)
296 <223> OTHER INFORMATION: a, c, g or t
298 <220> FEATURE:
299 <221> NAME/KEY: modified_base
300 <222> LOCATION: (82)
301 <223> OTHER INFORMATION: a, c, g or t
303 <400> SEQUENCE: 6
W--> 304 gctcccagga aggetrttna cytgnccytc rcaratrtcr cgngcytcyt gvagngrat 60
305 vagnacraan gngtvagdg anacatctgc ctcccttggcg 100
308 <210> SEQ ID NO: 7
309 <211> LENGTH: 101
310 <212> TYPE: DNA
311 <213> ORGANISM: Artificial Sequence
313 <220> FEATURE:
314 <223> OTHER INFORMATION: Description of Artificial Sequence: DNA sequence of Fuz7
316 <220> FEATURE:

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/582,761B

DATE: 04/17/2003  
TIME: 10:46:41

Input Set : A:\37945008.app  
Output Set: N:\CRF4\04172003\I582761B.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 24,30,33,39,57,63,69,72,78,81  
Seq#:2; N Pos. 19,40,61  
Seq#:3; N Pos. 35,41,44,68,77  
Seq#:4; N Pos. 32,35,38,47,62,74,77,89  
Seq#:5; N Pos. 22,25,40,46,67,70,76  
Seq#:6; N Pos. 19,25,43,55,64,70,73,82  
Seq#:7; N Pos. 26,29,44,74,77,80,86  
Seq#:8; N Pos. 34,37,52,55  
Seq#:9; N Pos. 30,36,39,48,57  
Seq#:10; N Pos. 17,26,29,35,41,47,50,53,80  
Seq#:11; N Pos. 25,31,49,61  
Seq#:12; N Pos. 31,34,37,40,46,49,52,55,61

## VERIFICATION SUMMARY

DATE: 04/17/2003

PATENT APPLICATION: US/09/582,761B

TIME: 10:46:41

Input Set : A:\37945008.app

Output Set: N:\CRF4\04172003\I582761B.raw

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:84 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
M:341 Repeated in SeqNo=1  
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
M:341 Repeated in SeqNo=2  
L:150 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
M:341 Repeated in SeqNo=3  
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
M:341 Repeated in SeqNo=4  
L:251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
M:341 Repeated in SeqNo=5  
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
M:341 Repeated in SeqNo=6  
L:352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
M:341 Repeated in SeqNo=7  
L:385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:423 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:481 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
M:341 Repeated in SeqNo=10  
L:514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
M:341 Repeated in SeqNo=11  
L:572 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
M:341 Repeated in SeqNo=12